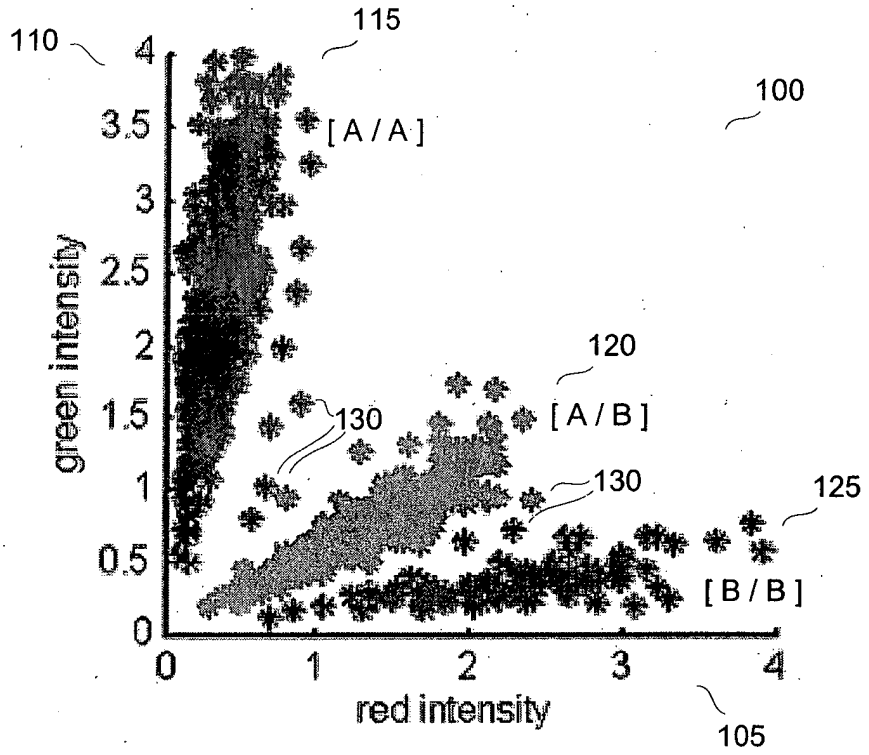

FIGURE 1A

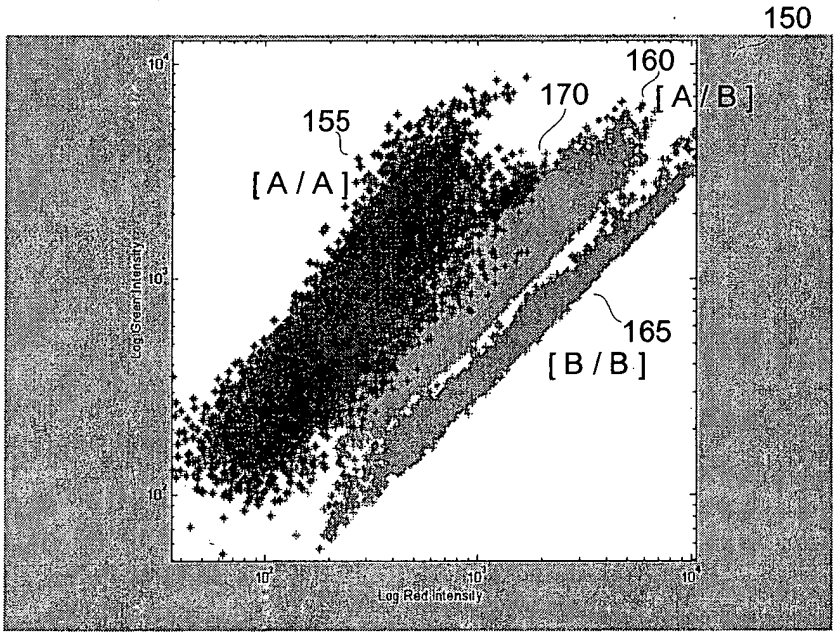

FIGURE 1B

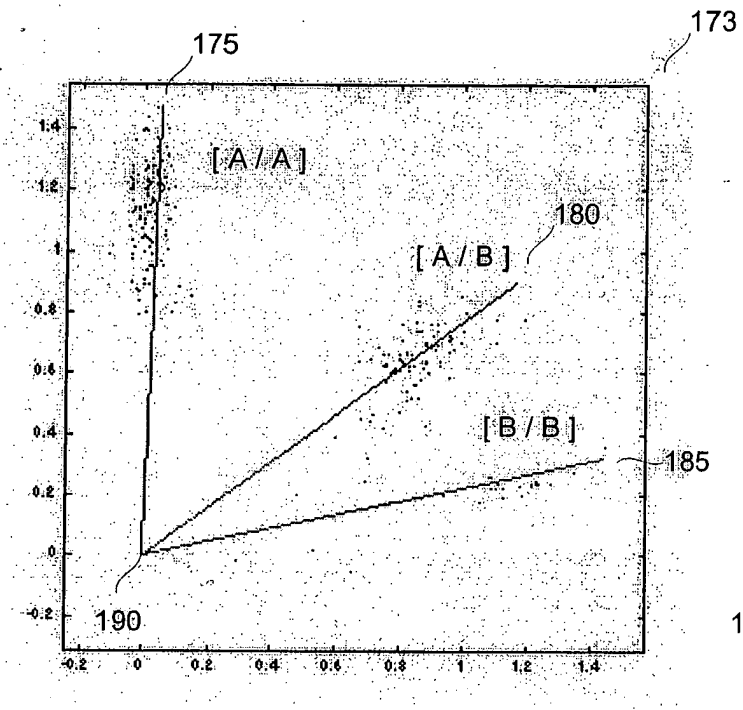

FIGURE 1C

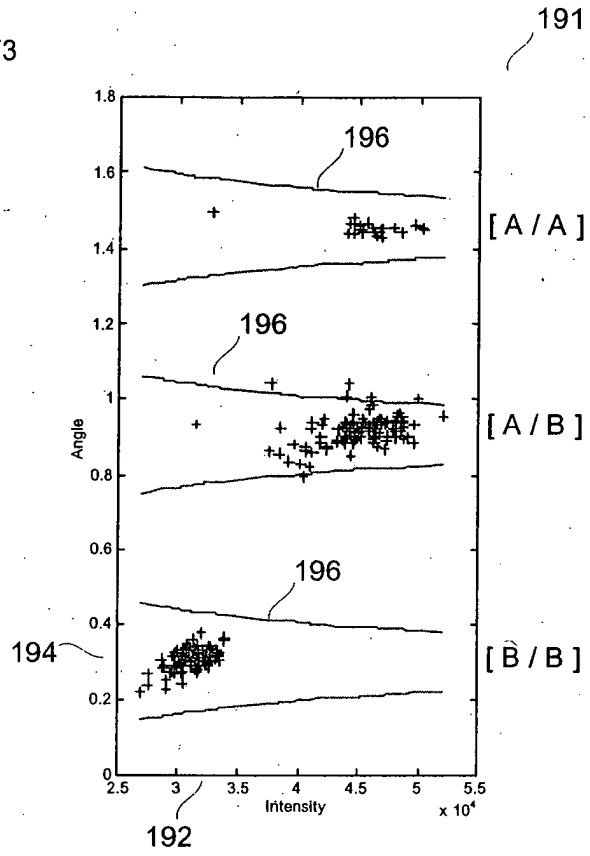

FIGURE 1D

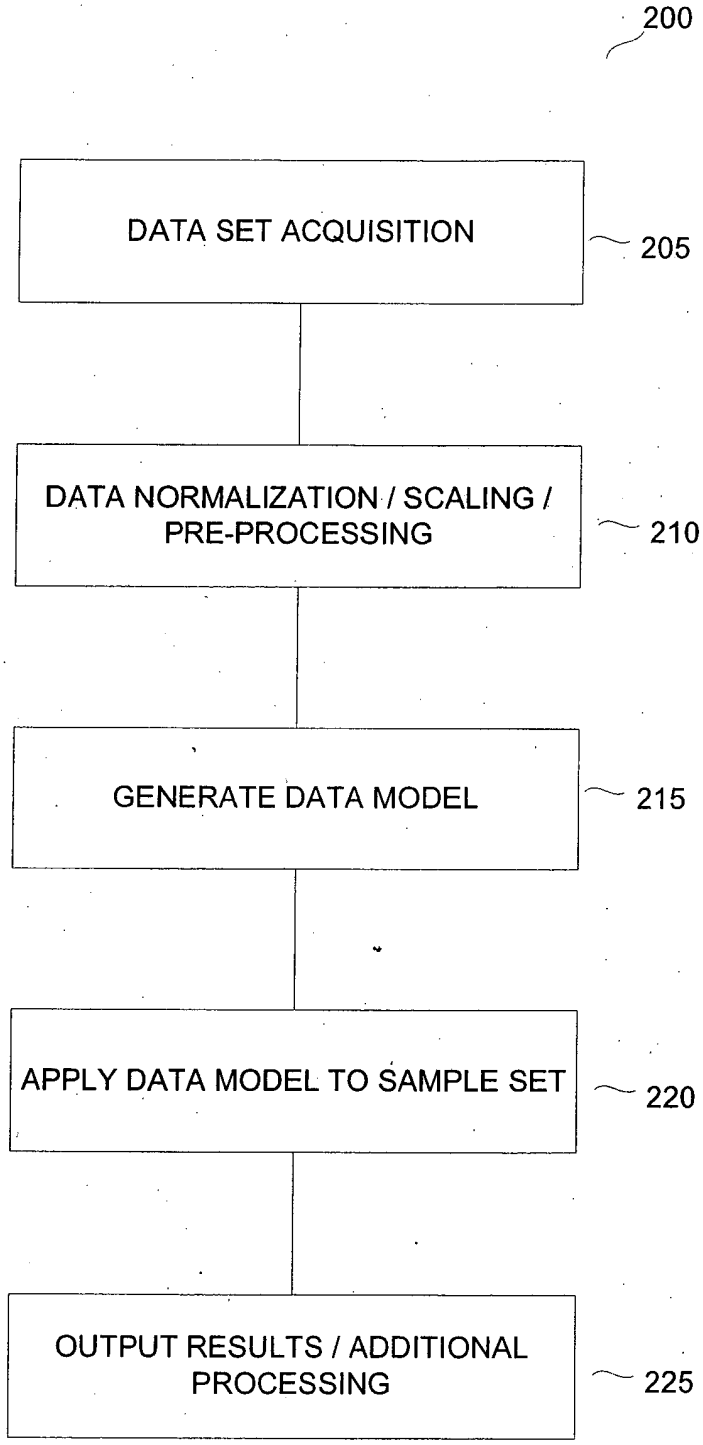
200
DATA SET ACQUISITION
205
DATA NORMALIZATION / SCALING / PRE-PROCESSING
210
GENERATE DATA MODEL
215
APPLY DATA MODEL TO SAMPLE SET
220
OUTPUT RESULTS / ADDITIONAL PROCESSING
225

FIGURE 2

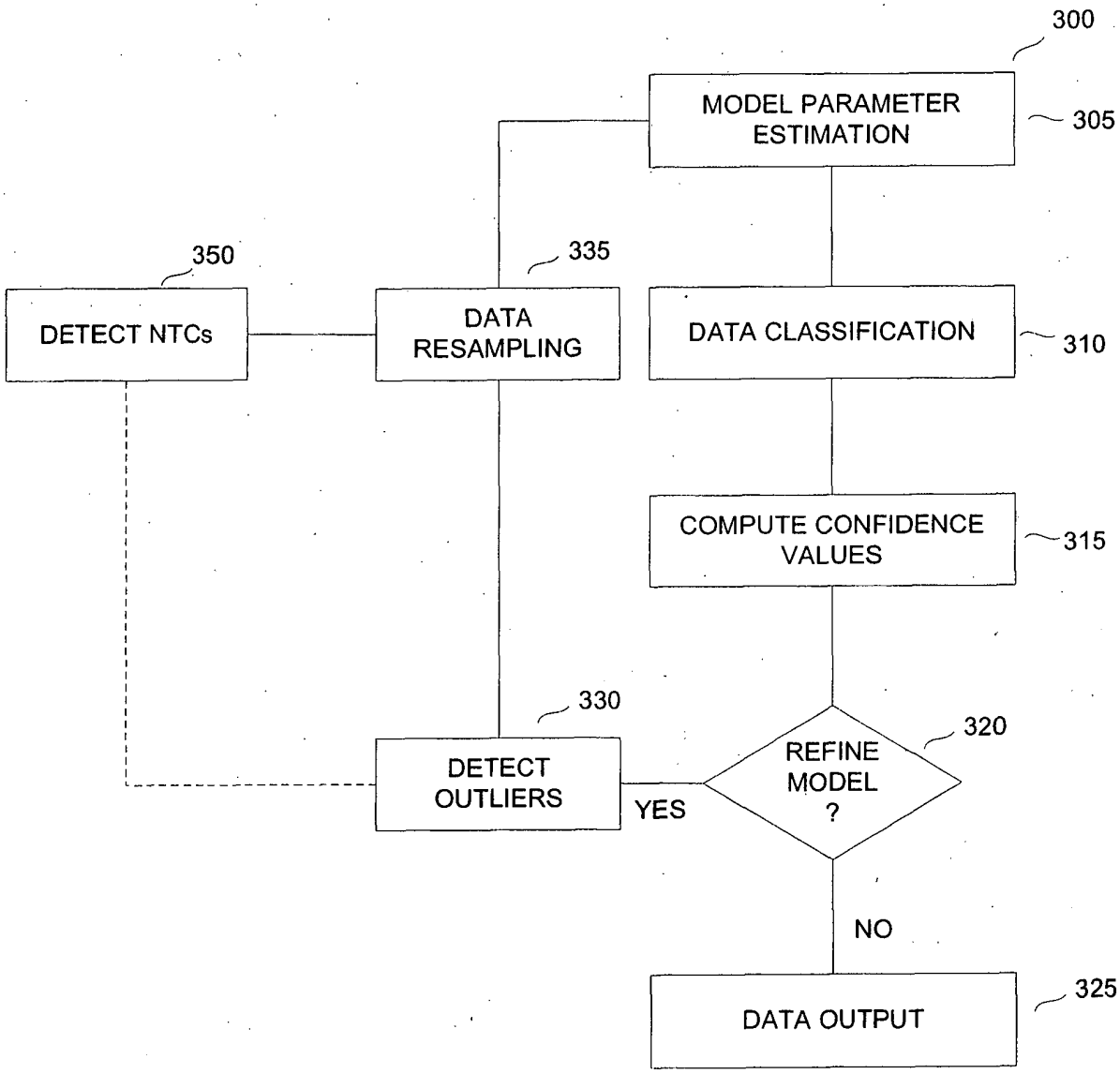
300
MODEL PARAMETER ESTIMATION
305
350
335
DETECT NTCs
DATA RESAMPLING
DATA CLASSIFICATION
310
COMPUTE CONFIDENCE VALUES
315
330
320
DETECT OUTLIERS
YES
REFINE MODEL ?
NO
DATA OUTPUT
325

FIGURE 3

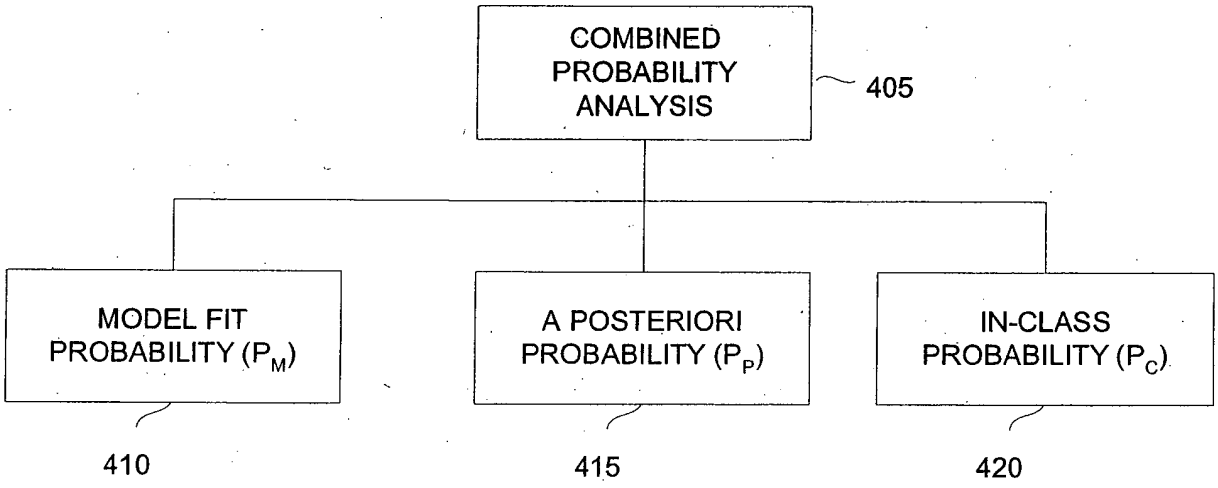
COMBINED PROBABILITY ANALYSIS
405
MODEL FIT PROBABILITY (P_M)
A POSTERIORI PROBABILITY (P_P)
IN-CLASS PROBABILITY (P_C)
410
415
420

FIGURE 4

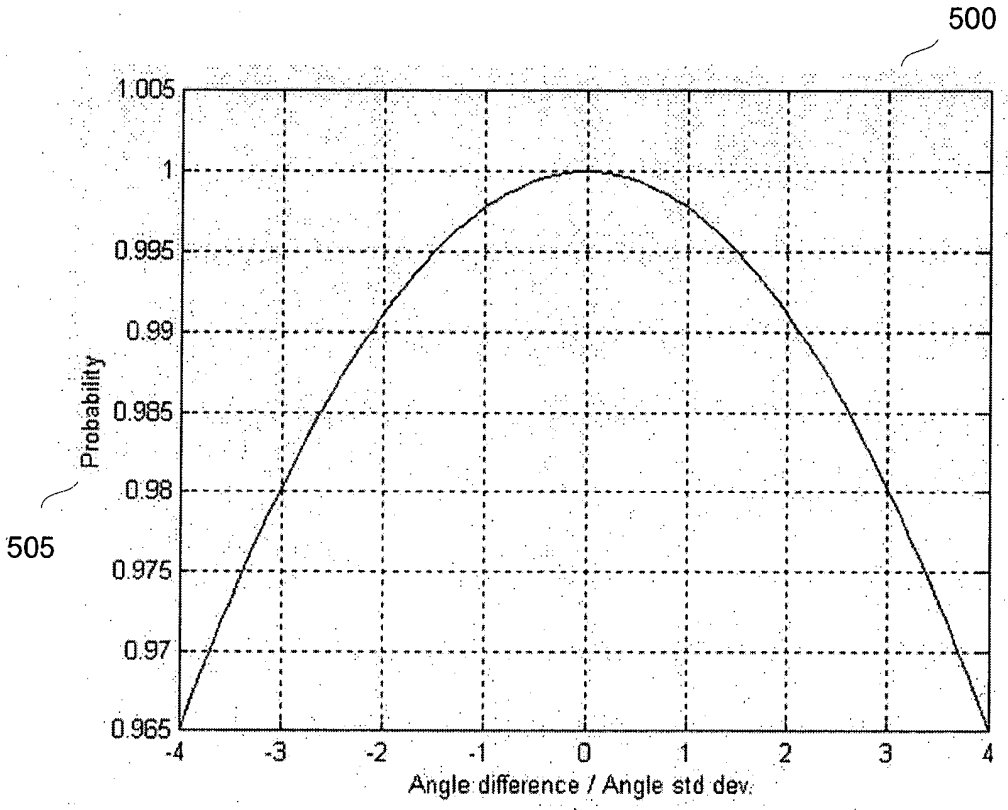
500
505
Probability
1.005
1
0.995
0.99
0.985
0.98
0.975
0.97
0.965
-4
-3
-2
-1
0
1
2
3
4
Angle difference / Angle std dev.

FIGURE 5

ARRAY-BASED ANALYSIS

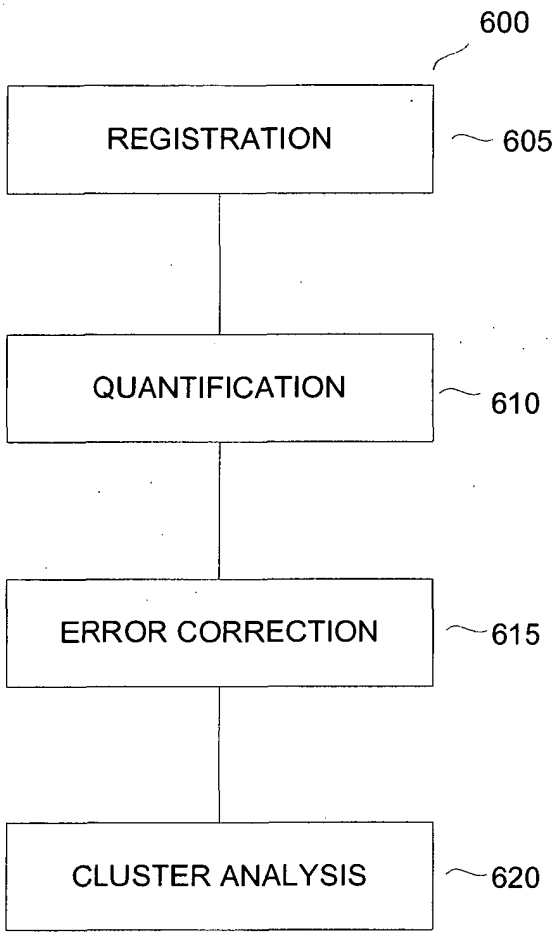

FIGURE 6

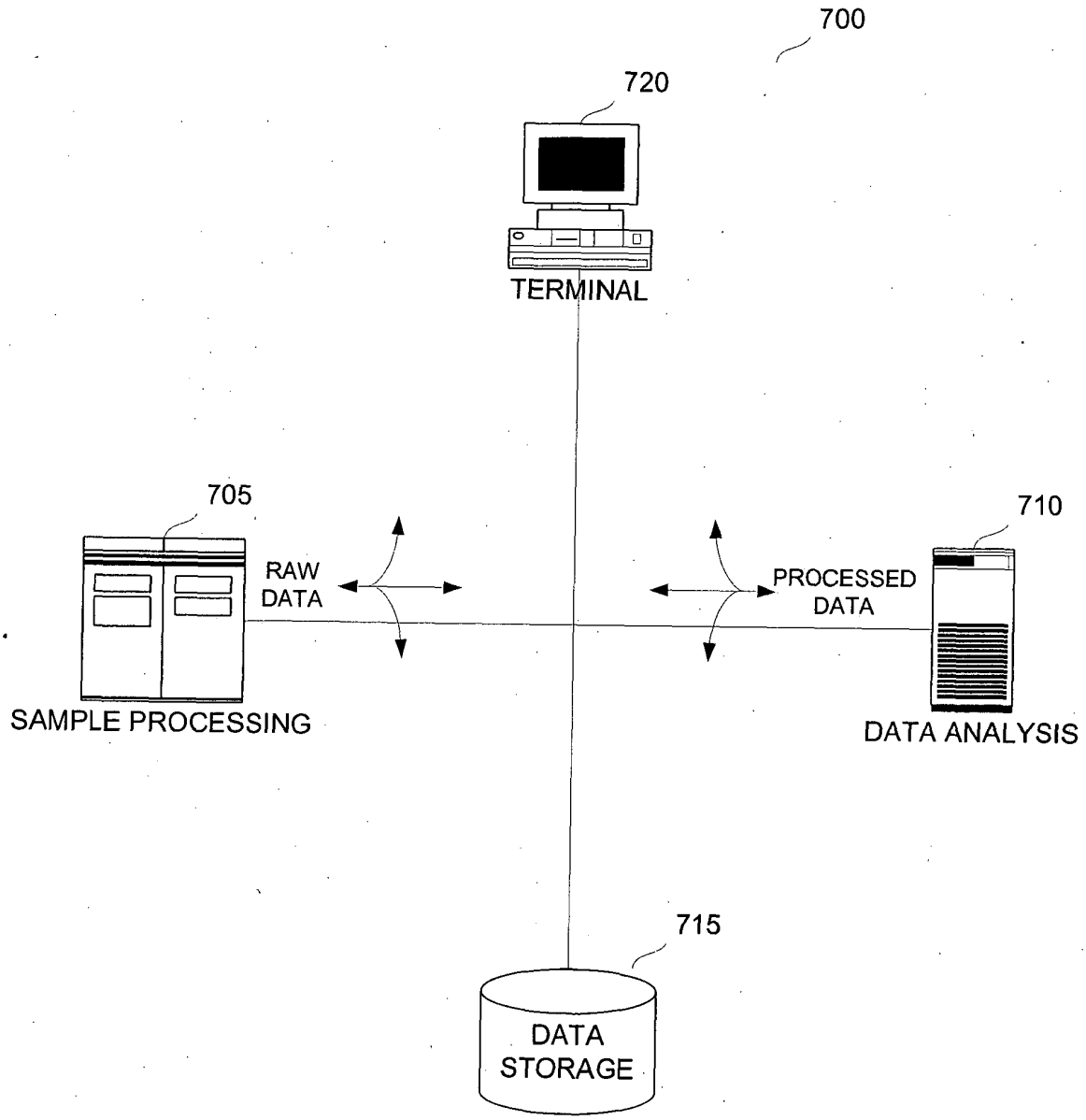
700
720
TERMINAL
705
RAW
DATA
SAMPLE PROCESSING
710
PROCESSED
DATA
DATA ANALYSIS
715
DATA
STORAGE

FIGURE 7